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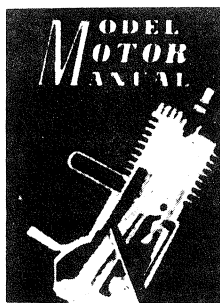
Only 1 1/2" High • Powerful for size •
Armature speed: 4000-6000 r.p.m.,
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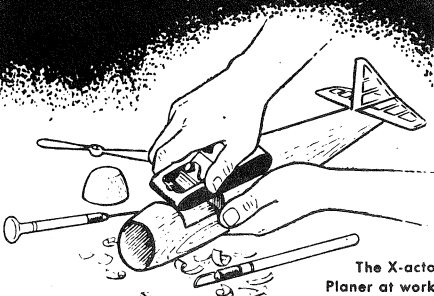
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the ship. If banked into the circle, tug will be less, since the lift is no longer vertical but into the circle. If outboard wing rides low, the tug is increased in a like manner. The vertical CG location has a pronounced effect on the bank angle, so some thought should be given to layout of the side view. The low wing setup has proved to be the best compromise on this point. The landing gear balances the upper structure bringing the CG down around the wing for a fairly neutral setup. This presumes the leadouts are brought through the wing. We built one combat ship with everything above and below the center line balanced; and the engine laid on its side. This ship flew perfectly level laterally and was real nice to handle. Engine offset is very effective in controlling tug, particularly in overhead eights. Three degrees has been found the best compromise for this. You will always have your pure centrifugal force in level flight, but the effect is decreased as you climb on the circle. The forces and analysis of same are greatly complicated in control line due to operating in a hemispherical flight path. For the most part, detailed analysis proves little.

Next month we'll prove plenty and get this show all wound up.

Hornisse Wakefield Winner

(Continued from page 26)

—ply in mm thickness, for example, the plan shown here has been converted to easy-to-obtain materials in our hobby shops. No really important changes have been made, substitutions being in the smaller details. Believing that the Wakefield student is an expert builder, the drawn-out step-by-step construction has been eliminated, but any essential comments follow below.)

The propeller is made of medium balsa of 12 grams per cubic foot, specific weight. The block is cut out with all surfaces at right angles and is drilled in the center. The backs of the prop blades are sanded flat from edge to edge. Camber is sanded in according to plan; it is important that the highest part of the camber be towards the rear of the blade section. Not until this is done will the blades be shaped. Only a minimum of twisting of the thin blades is allowed in order to maintain the pitch. Under no circumstances blades should exceed the given thickness, or else the total weight of 6 grams for the prop will be exceeded. One layer of thin tissue is applied to the end of the blades and

(Continued on page 60)

Curtiss
P-40Q

WING TIP SECTION
WING ROOT SECTION

F - F
G - G

THE P-40Q WAS ACTUALLY THE LAST OF THE P-40 LINE AS THE P-40R WAS JUST A MODIFIED P-40F